

WHAT IS CLAIMED IS:

1. A method of forming a fine pattern, comprising,
a lithography step for forming a resist pattern on a film
5 to be processed deposited on a substrate using a lithography
technique,
a first etching step for etching said resist pattern to narrow
the line width of said resist pattern,
a second etching step for performing anisotropic etching
10 to a first film to be processed underneath said resist pattern,
under a reduced pressure environment where the etching rate in
the vicinity of the side of said resist pattern is higher than
the etching rate of other areas, to expose a second film to be
processed underneath said first film to be processed in the
15 vicinity of the side of the line of said resist pattern, and to
form the pattern of said first film to be processed, and
a third etching step for etching said second film to be
processed using the pattern of said first film to be processed
as a mask, to form a pattern of a pitch of $1/2$ the pitch of said
20 resist pattern on said second film to be processed.
2. The method of forming a fine pattern according to claim 1,
wherein said reduced pressure environment is environment where
the pressure of the etching gas is 1.5 Pa or below.
- 25 3. The method of forming a fine pattern according to claim 1,
wherein said first film to be processed is a nitride film, and
said second film to be processed is an oxide film.
- 30 4. The method of forming a fine pattern according to claim 1,
wherein said third etching step is a step for performing
anisotropic etching to said second film to be processed using
the pattern of said first film to be processed as a mask, then

performing isotropic etching to obtain a pattern of a desired line width and space width.

5. The method of forming a fine pattern according to claim 1, further comprising a fourth etching step, wherein anisotropic etching is preformed to said third film to be processed underneath said second film to be processed using the pattern obtained by said third etching step as a mask, to form a desired line width and space width on said third film to be processed.
6. A method of manufacturing a semiconductor device comprising steps for forming a fine pattern using the method of forming a fine pattern according to claim 1.
7. A semiconductor device manufactured using the method of manufacturing a semiconductor device according to claim 6.